

The Citrus Industry

Vol. 26 — No. 9

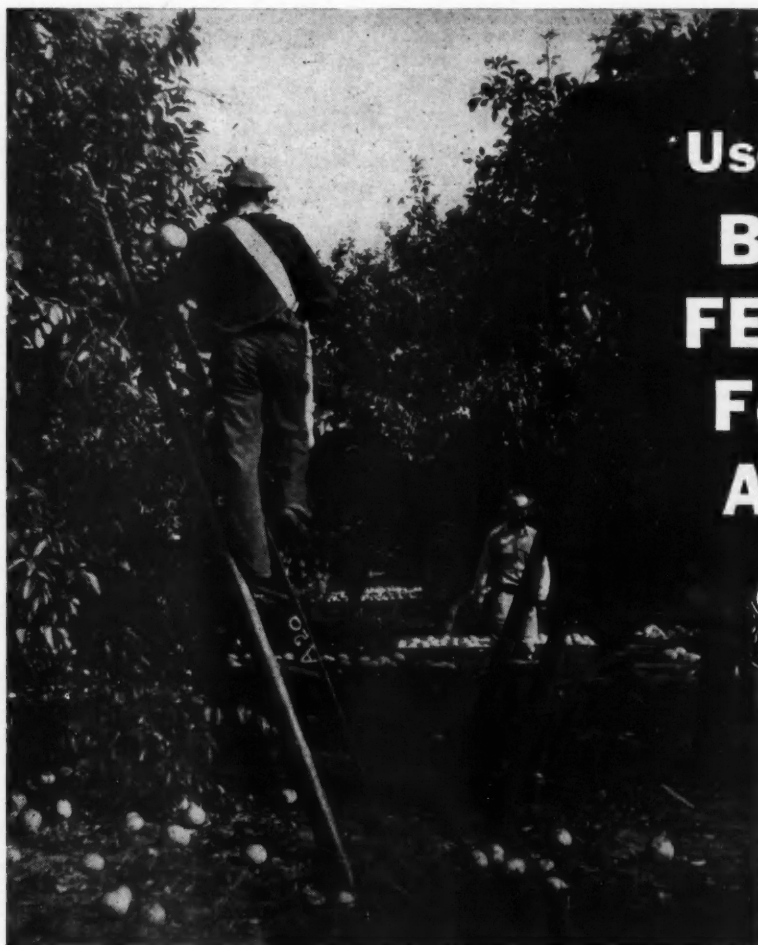
SEPTEMBER, 1945

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JACKSONVILLE, FLORIDA

The delayed session of the
Fifty-Eighth Annual Meeting
of the
Florida State Horticultural Society
will be held in
Orlando, on Tuesday, Wednesday and
Thursday, October 2-3-4

An interesting and instructive program has been arranged . . . The official announcement and preliminary program will be found elsewhere in this issue.



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JACKSONVILLE, FLORIDA

Porter To Head Fruit Insect Investigations

The Department of Agriculture has selected Bennet A. Porter to head the Division of Fruit Insect Investigations in the Bureau of Entomology and Plant Quarantine, Agricultural Research Administration.

Dr. P. N. Annand, Chief of the Bureau, has announced that Dr. Porter will succeed Delos L. Van Dine, who retired from Government service on June 30, after having served as head of the fruit insect work since February 1933. This division is concerned with investigations on and the development of control measures for insects affecting fruits, fruit trees, nuts, grapes, and certain small fruits, such as blueberries and cranberries. It includes research on the Japanese beetle and responsibility for the program of eradication of the pear psylla in the Pacific Northwest and of the Hall scale in California. Directed from headquarters in Washington, the activities are carried on at 23 field stations located in most of the more important fruit- and nut-growing regions of the country.

Dr. Porter has been connected with the work of the division that he will now head since June 8, 1917, except for two brief periods during the first two winters when he was temporarily transferred to the Federal Horticultural Board to assist in meeting an emergency in connection with work on the pink bollworm. He was first stationed at Wallingford, Conn., where he investigated the tent caterpillar, the apple maggot, and other fruit insects until 1923. For the next six seasons he was in charge of the Bureau's field station at Vincennes, Ind., conducting research on the codling moth and other fruit insect pests of the Ohio Valley. Called to Washington on December 1, 1928, to serve as group leader in codling moth investigations and to study the spray residue problem, Dr. Porter has for the past 17 years also served as assistant leader of the division.

GOVERNMENT TO CONTINUE WAGE PROGRAM

Reports prevalent in the citrus industry that there was danger of the government discontinuing the

wage stabilization program for citrus harvesting labor, including pickers, have been officially denied by the office of labor of the United States Department of Agriculture.

The reports apparently started when the Florida Citrus Commission and representative shippers sent telegrams to Secretary of Agriculture Clinton Anderson urging that the wage ceiling program be continued. L. H. Kramer of Lake Wales, chairman of the USDA wage board for Florida, explained that these wires were merely supplementary to the action of an industry

meeting a few days earlier, recommending the continuance of the maximum wage rates.

The reports were so confusing that the office of labor was asked by Kramer for an official statement and it was quickly forthcoming over the press wires.

Kramer pointed out that "it would be a tragic thing for the citrus industry" to have the wage ceilings discontinued now, especially in the light of continued OPA ceiling prices on cost of living essentials, including citrus fruits sold to the ultimate consumer.



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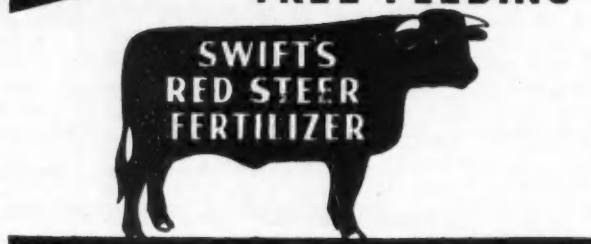
Right now we can not serve additional groves or growers. Our facilities are extended to their limits in serving groves already under our care. But, the time will come when we can serve you.

The success of the Swift Program for Controlled Tree Feeding depends on properly trained tree experts, seasoned manufacturing men, good facilities and the highest quality materials. We will not deviate! You'll get the REAL thing when we tell you we can put your groves under the Swift Program.

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INSPECTED & SERVICED
UNDER THE

Swift Program
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TREE FEEDING



Swift & Company, Plant Food Divison
Bartow, Florida



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Florida State Horticultural Society To Meet In Orlando, Oct. 2-3-4

The Executive Committee of the Florida State Horticultural Society has set the dates for a fall meeting of the Society to be held in Orlando on October 2, 3, and 4, 1945. This meeting is to take the place of the 58th annual meeting of the Society that was scheduled to meet in the Spring of 1945 but was cancelled due to war regulations. General satisfaction has been expressed by the members that this meeting is to be held due to the fact that the Society has held fifty-seven consecutive meetings since its organization in 1888 and they were reluctant to have the sequence broken.

This is a critical period for horticulture in Florida and there are many problems to come up for discussion at the Orlando meeting that will be of interest to all growers. Meeting at the same time and place will be the **Vegetable Section** of the Society and the 13th Annual Meeting of the **Krome Memorial Institute**. The program of the Institute is devoted to a horticultural discussion of Avocados, mangoes, and other subtropical fruits, grown in Florida.

The headquarters and local meeting places have not yet been selected, but will be announced at a later date. A preliminary citrus program has been prepared, however, there will be some changes in the final program. Some subjects of

timely interest are to be added. On Wednesday night October 3rd, there will be a combined meeting of the citrus and vegetable growers and subjects of combined interest will be discussed. The citrus program as assembled to date is as follows: The presiding officers are President F. M. O'Byrne of Lake Wales; Vice-president H. S. Wolfe of Gainesville and Vice-president F. S. Jamison of Gainesville.

Preliminary Program

Tuesday, October 2, 1945, 8:00 P. M.

Call to Order.
Invocation.
National Anthem.
Address of Welcome.
Response.
Address by President.
Address—"One Hundred Years of Horticulture in Florida". Dr. H. Harold Hume, Gainesville.

Wednesday, October 3, 9:00 A. M.

Address—"The Importance of Microbial Action in Florida Soils". Dr. F. B. Smith, Gainesville.
Address—"Soil Moisture Problems in Florida Citrus Soils". Dr. V. C. Jamison, Lake Alfred.
Address—"Soil Moisture Factors in Citrus and Avocado Grove Management". J. R. Furr, Orlando.

Address—"The Root System of Various Citrus Root Stocks". Jach Savage, Ext. Agriculturist, Gainesville, Cooper and Piper, Orlando.

Address—"Water Supplies For irrigation Purposes". J. R. Kimmel Sarasota.

Wednesday, October 3, 2:00 P. M.

Address—"The Program of the U. S. Horticultural Council and the Relation to Foreign Trade in Citrus." Dr. J. Wayne Reitz, Orlando.

Address—"The Research Objectives of the Citrus Products Council". Dr. J. L. Heid, Lake Wales.

Address—"Frozen Orange and Grapefruit Hearts". Dr. A. L. Stahl, Gainesville.

Address—"Dehydrated Citrus Fruit Juices". R. E. Carlton and H. R. Cloud, Orlando.

Address—"Citrus Fruit Products Research". Dr. M. R. Veldhuis, Winter Haven.

Wednesday, October 3, 8:00 P. M.

Combined Session of Citrus and Vegetable Sections Program to be Announced.

Thursday, October 4, 9:00 A. M.

Address—"The Place of Agriculture in Our State and National Economy". D. E. Timmons, Gainesville.

(Continued on page 11)

BACTERIA . . .

The nature of bacteria and the part they play in our everyday life is one of the most fascinating stories of modern science. Our concept of the world about us has been changed remarkably since the science of bacteriology was developed. The most significant contributions to medical science in the past decade have related directly or indirectly to the bacteria. The safety of our drinking water; the flavor of foods; the quality of milk, butter and cheese; the curing of meats, canning, pickling and preserving of fruits and vegetables; and the health and happiness of man depend in large part on the action of the bacteria. I am going to tell you briefly what the bacteria are and something of bacterial activities which vitally affect every one of us.

Bacteriology is frequently defined as that branch of science which has to do with bacteria, but in a broader sense it may include consideration likewise of all those organisms which may be studied most conveniently and satisfactorily by the methods used in the study of the true bacteria. Those who use the term bacteriology in the narrower sense have adopted microbiology to designate that science which includes consideration of all forms of microscopic life. The term bacteriology will be used here in the broader sense.

Bacteria are tiny, one-celled plants so small they can be seen only with the aid of a powerful microscope. Yet the magnitude of the changes they bring about is out of all proportion to their size. For example, it has been shown that the bacteria consume from 40 to 60 times as much energy as man in terms of calories per gram of body nitrogen. They multiply so rapidly that no other life on the earth would be possible if conditions remained favorable for their growth only a few hours. They divide every 20 or 30 minutes and one bacterium becomes two.

A knowledge of bacteria revolutionized the practice of medicine. It was the English surgeon Lister, who died in 1912, who was the first to grasp the importance of bacteria in relation to disease and it was he who introduced antiseptic technique into surgical

F. B. SMITH

Chemist and Head of Soils Department, Florida Agricultural Experiment Station

operations. Before this, an operation often meant infection and death. By the use of sulfa drugs, infection has been kept down in World War II and a tremendous decline in mortality is due to this cause. It was Robert Koch, A German physician who died in 1910, who showed that certain infectious diseases of man were caused by bacteria. That was not many years ago. Now the cause and treatment of tuberculosis, typhoid fever, and diphtheria, to mention only a few diseases, are well known. This knowledge has developed during the past 65 years. It was Koch who in 1881 developed a method for studying the bacteria in pure culture and thus made known the relation of bacteria to such diseases. When we tour the country and see the road-side sign, "Water safe for drinking," we know that the water is free of typhoid germs.

Food, a necessary requisite of life, must be produced, processed, transported, and handled before it is consumed. The quality of food products depends upon the presence or absence of bacteria and the extent bacterial action has taken place. Foods which are kept free of bacteria and other micro-organisms will not spoil. Foods with a low number of bacteria are less likely to have undesirable species than with a large number. Refrigeration, quick-freezing, pasteurization, boiling, canning, dehydration, pickling, and preserving are procedures for restricting microorganisms in foods. Cold storage and refrigeration are important for the preservation of such foods as meats, milk, and eggs. Refrigeration above freezing will not hold foods indefinitely, but it is the most satisfactory agent for the preservation of foods for short periods of time. Some bacteria survive several hours at temperatures below freezing. Most bacteria are killed at moderately high temperatures and this is the most reliable method of sterilization. Heating below the boiling point is

a favorite method of preserving fruit juices. Pasteurization is that process of food preservation in which food is heated to a temperature sufficient to destroy certain types of undesirable bacteria, but not necessarily to destroy all living microorganisms present. The process was first used with wines and beers. Heating such materials to high temperatures would injuriously affect their flavor. By careful tests, the time and temperature sufficient to destroy the undesirable organisms may be determined without injuring the flavor. The process has in recent times come to be used most extensively with milk. In the modern milk pasteurizing plants, however, the effort is made to heat the milk to the temperature and for a sufficient length of time to kill all disease-producing germs. Milk may also be pasteurized to destroy organisms which may give undesirable flavors to the cream products, particularly butter. It is evident that pasteurization of milk is primarily a sanitary measure rather than a means for increasing its keeping qualities. Boiling is a more reliable method of killing bacteria, but the spores of bacteria which cause botulis may not even be killed by this process and it has been recommended that non-acid foods, such as string beans, should be canned in a pressure cooker where higher temperatures may be obtained than in boiling water.

One of the commonest and most important of the changes brought about in carbohydrates by microorganisms is that known as alcoholic fermentation, that is, the transformation of sugar into alcohol. This type of fermentation is important in the preparation of commercial alcohol, bread, and other foods. Many different leavening agents have been utilized in the preparation of bread. When wheat flour and water are mixed in proper proportions, the gluten of the flour forms a pasty mass, taking up most of the water. This is made porous by the introduction of minute gas bubbles, usually of carbon dioxide. This gas is generally generated by yeasts. In some cases bacteria have been substituted for yeast. "Salt-rising" bread is made by utilizing certain organ-

isms of the genus *Bacterium*.

Lactic acid fermentation is the most common change observed in milk, and fermentation of this type is most important in the development of the acid so necessary in the preservation of foodstuffs such as silage, sauerkraut, pickles, and other fermented foods.

An artificial buttermilk frequently sold at soda fountains is prepared by inoculating milk with a culture of lactic acid bacteria. Soured milk beverages have been used since ancient times all around the shores of the Mediterranean countries. The so-called Bulgarian buttermilk is produced by the use of the organism *Lactobacillus bulgaricus*. It is believed by some that the consumption of soured milk beverages of this type have unusual health promoting qualities. When milk that has been soured by bacteria is heated, the curd contracts, the whey is expelled and may be drained away. The curd may then be worked or molded, or mixed with various flavoring materials and converted into a sour milk cheese or cottage cheese. This type of cheese is not usually subjected to a ripening process. There are many different varieties. The character of a cheese and the kinds of microorganisms present and active will depend very largely upon several factors. Cheddar cheese, Roquefort, and Camembert cheese are prepared by varying conditions. The proteins as well as the carbohydrates of the milk are changed by fermentation in the latter types of cheese.

It is recorded that during the summer of 332 B.C., while Alexander the Great's army surrounded the city of Tyre in Phoenicia, no little excitement was caused by the appearance of "bloody bread". It was looked upon with superstition and fear and was considered of diabolical origin. We know now that it was caused by a soil bacterium called *Serratia marcescens* which grows on bread and in milk and produces a red pigment. Its appearance, of course, indicates unsanitary conditions.

Silage is prepared by chopping or shredding various green crops and packing them compactly into an air-tight structure called a silo. In general, the crop plants most used for ensilage are those which contain considerable quantities of sugar when green and starch when mature; such, for example, as corn, sorghum, sugar cane or millet.

Other fodder crops may be used but unless the content of sugar or starch is sufficiently high it will be necessary to add corn or sorghum to prevent undesirable putrefactive changes. The most essential change in silage is the transformation of a part of the carbohydrate present into lactic acid. The lactic acid accumulates in sufficient quantities to prevent the development of putrefactive microorganisms if satisfactory conditions are maintained. The organisms responsible for bringing about the fermentation are members of the genera *Bacterium* and *Loctobacillus* for the most part. The characteristic odor of good silage is due to the presence of certain volatile acids and to the formation of esters with the traces of alcohol present.

Sauerkraut is prepared by slicing cabbage, mixing it with salt, and pressing it firmly into casks or vats. The sugary juices of the cabbage leaves together with the salt soon form a liquid which covers the mass. Lactic acid fermentation by microorganisms belonging to the genus *Bacterium* and also *Lactobacillus* takes place and soon the lactic acid content of the brine rises to a point which will inhibit the growth of these bacteria. Sauerkraut prepared in this way will keep for a considerable length of time if not exposed to the air. When exposed, the lactic acid is decomposed rapidly. Sweet corn, beets, and some other foods are occasionally preserved in a manner similar to sauerkraut.

The acetic acid bacteria are of considerable economic importance. Vinegar, a solution of acetic acid, usually from 4 to 8 percent, is developed by the fermentation of alcoholic solutions of various types such as cider and wine. The materials most commonly used for the home manufacture of vinegar are cider or other fruit juices, honey, and artificial sugar solutions. The best commercial vinegars are manufactured from cider and wine.

The importance of bacteria in health, food, and industry has been recognized as we have just pointed out. It is not possible in the short space available to mention all the practical applications of bacteriology, but there is one group of bacteria of no less importance than those we have discussed which, because of their obscurity, have not been accorded the same general consideration. They are the micorbes of the soil. Were it not for the presence

and activities of the bacteria in the soil, the growth of higher plants their activity the soil bacteria. By their activity the soil bacteria are constantly making available for higher plants the substances necessary for their growth. Growing crops need, among other elements, carbon, hydrogen, oxygen, nitrogen, sulfur, phosphorus, iron, and calcium. Bacteria play only a minor role in making available the hydrogen and oxygen, but the other elements are practically all of them made available in suitable compounds by the action of the bacteria.

The actual numbers of bacteria vary from a few thousand to many million per gram of soil, depending upon conditions. They are most abundant near the surface, generally, and decrease rapidly with increase in depth. In Florida soils, the largest numbers are found during the winter, but in more northerly latitudes the numbers are greatest in spring and autumn.

Bacteria are of primary importance in the soil because of the chemical changes which they are able to bring about. As a matter of fact, most of the chemical action in soils is due to bacterial action. The changes which have been enumerated above make available elements necessary for plant nutrition. Complex compounds are constantly being broken down into simpler compounds and simple compounds built up again into more complex forms. One example will be given for illustration. All plants which live in the soil, including the bacteria, require nitrogen for their growth. The process of taking up nitrogen and utilizing it in metabolism, particularly in the build-up of protein, is called nitrogen assimilation. Some higher plants have the ability to assimilate complex forms of nitrogen but for the most part they prefer simple compounds. Nitrites are poisonous to most plants and before nitrogen in this form can be utilized, it must be changed by bacterial action. The transformations which nitrogen may undergo are fairly numerous. Microorganisms play a large part in bringing about these changes. Simple compounds of nitrogen are assimilated by the higher plant and built into complex compounds. These, after the death of the plant or of the animal which has eaten the plant, are returned to the soil and broken down into simpler compounds. As the starting point in

(Continued on page 15)

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with which is merged The Citrus Leaf
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HORTICULTURAL SOCIETY TO MEET

The Fifty-Eighth Annual Meeting of the Florida State Horticultural Society, usually held during the spring months but which this year was postponed owing to travel conditions due to the war, will be held at Orlando on Tuesday, Wednesday and Thursday, October 2, 3, and 4.

Secretary Bayard F. Floyd announces that an interesting and instructive program has been arranged, during which speakers of nationwide reputation will discuss subjects of vital interest to citrus growers.

The Florida State Horticultural Society during more than half a century of service has played an important part in the development of the Florida citrus industry. The Society has cooperated with State and Federal agencies in promoting research activities and in conducting campaigns for the eradication of diseases and pests which from time to time have threatened the industry.

The annual gatherings have brought together leaders of the industry in every field—cultural, marketing, research and inspection. At these meetings the results of careful study and investigation have been presented by speakers of eminence in their particular fields. The results of these studies as presented are preserved in the annual proceedings of the Society and given wide publicity in publications devoted to the industry.

The forthcoming meeting promises to be fully up to the high standard which has been maintained since the organization of the Society. Every citrus grower who can possibly do so should plan to attend.

FAIR AND FESTIVAL TO BE RESUMED

With the end of the war, active steps are being taken to resume many public activities which have been held in abeyance while we were busy fighting on the European and Pacific fronts.

Among these activities which directly concern Florida citrus growers are the Florida State Fair at Tampa and the Florida Orange Festival at Winter Haven. Promoters of both these organizations have decided to go ahead with arrangements for resuming activities during the winter months. Only obstacles in the way to early resumption, and these it is believed may be overcome, are the occupation of the State Fair grounds by the army and the use of the Festival grounds by prisoners of

war.

The Florida State Fair has always featured the citrus displays. Indeed, citrus has always been the most widely advertised and most attractive feature of the Fair, while the Orange Festival is primarily and almost exclusively a citrus affair.

With these two great Fairs again presenting the attractions of the state and supplying amusements for Florida citizens and Florida visitors, as it is hoped and believed they will, the citrus industry of Florida will again come into its own visually, as it has been actually, the greatest industry of the state.

CONTROL LIFTED

The lifting of all government controls—except on prices—on the distribution and sale of fresh and processed citrus fruits, poses a new problem for Florida citrus growers.

Two major factors will have far-reaching effect during the season about to open: The government is eliminating almost entirely the purchases of canned citrus products, and Florida is expected to have the biggest crop in its history this coming season.

With the almost complete elimination of purchases of citrus products for lend-lease and the armed forces, together with the prospect for record United States crops of oranges and grapefruit, it is evident that the industry must redouble its efforts to find new outlets and increase its merchandising activities to prevent a serious change in the price structure which has prevailed during the past few seasons.

Last season government purchases of canned citrus products amounted to approximately 20,000,000 cases. It is anticipated that not more than 1,000,000 cases will be purchased by the government during the approaching season. Somewhere that difference must be made up. With the laying off of many workers in war plants, and the consequent lessened purchasing power, great merchandising activity will be needed to close that gap.

However, many new users of citrus fruits have been added during the past few years. These users have acquired the citrus appetite and the citrus habit which it will be hard to break, so long as the purchasing power is not too greatly affected. It is not to be expected that the high prices of the past two or three years can be maintained, but the industry has met and solved quite as serious problems in the past and we believe it will be able to meet the present situation. But it will require the best efforts of the best minds in the industry—in Florida and elsewhere.

With a new shipping season about to open, it is well to remember that there never was a time when it paid to ship unripe fruit—and that there never will be a time.

With the outlook for a heavy crop of citrus fruits and the end of government buying for lend-lease and the armed forces, it is well that the citrus growers of Florida, California and Texas are getting together to consider and solve their numerous problems.

Food Machinery Corp. Moves To Lakeland

Food Machinery Corporation which for a number of years has maintained an extensive plant at Dunedin for the manufacture of packing house and other citrus machinery, has announced that the main plant will be moved to Lakeland at an early date.

Since the United States entered the war, the company has operated a plant at Lakeland for the manufacture of amphibious landing materials for the army. With the cancellation of federal orders for such equipment, the Lakeland plant has been closed, but it is announced that it will be reopened for the manufacture of citrus equipment as soon as necessary alternations can be made to accomodate the equipment now used in the plant at Dunedin, all of which will be moved to Lakeland. It is also announced that most of the personnel employed in the Dunedin plant will be transferred to Lakeland.

Food Machinery Corporation is one of the largest manufacturers of food machinery in the country, maintaining plants in California in the Pacific Northwest in addition to its Florida interest.

Fire Destroys Two Big Citrus Plants

Fire of unknown origin destroyed the million dollar plant of Citrus Concentrates, Inc., at Dunedin early in the morning of August 27. The plant was one of Florida's largest citrus by-products establishments, manufacturing concentrated citrus juices, much of the product being taken by the government for the army and navy.

The plant employed some 450 men and women and was the backbone of Dunedin's industrial development.

B. C. Skinner, president of the company was in New York on a business trip at the time of the fire, but his son, Bruce Skinner, vice-president of the company, announced that the work of rebuilding the plant would begin immediately.

Following closely upon the destruction of the Dunedin plant, fire on August 28 destroyed the Eagle Lake Packing Company plant at Eagle Lake. The packing house, office, garage and truck sheds were a total loss, which is said to have

been in excess of \$100,000. Fire departments from Winter Haven, Bartow and Bartow Army Air Base joined with the Eagle Lake fire department in fighting the blaze.

In addition to the buildings destroyed a great quantity of citrus boxes, mesh bags and "consumer unit" shipping bags were lost. It is announced that operations will be continued and temporary headquarters will be established immediately, probably in Winter Haven.

The end of the war brings us

NO RECONVERSION PROBLEM

.... but as fertilizer producers we've got a continuously difficult job ahead of us during the coming months.

NACO FERTILIZER COMPANY not only believes that the coming marketing season will be a successful one for Citrus Growers in Florida, but pledges that it will do its utmost to supply the necessary fertilizers and insecticides to help make the present crop a desirable one.



PLEASE REMEMBER . . .

There's still a labor shortage among fertilizer producers so we urge you to

order your fertilizer needs
EARLY!

**NACO FERTILIZER
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.... FLORIDA

The Food And Crop Situation

At this time much work has been done toward establishing agricultural production goals for 1946. These preliminary goals have been prepared on the assumption that total requirements will remain close to 1945 levels. The final goals will likely be released in late November or early December.

In connection with agricultural goals there must be taken into account the fact that crops must be planted at certain times of the year, and if not done within these planting limits, a whole year will elapse before another planting season comes around. With livestock, breeding plans must be made a long time ahead for animals like beef cattle and dairy cattle. Hog numbers can be increased rapidly and they can also be decreased very quickly. The present scarcity of pork and pork products in contrast to the heavy supplies a year ago is a good example of how quick the whole supply situation can change. The factors behind this change were in operation for many months before the results were felt by the consumer.

There are many factors that affect production, some of which farmers can do something about. Their ability to meet these conditions has been truly remarkable when they were so short of critically needed farm machinery, labor, and some supplies. The great No. 1 factor is weather and this can upset all of man's plans. For the past five years weather has been favorable to the farmer, except for a few small areas. In 1945 weather conditions have not been so good as droughts, floods, and late cool spells have affected large areas of the country and much will depend upon growing conditions during the next 60 to 90 days. The Nation's corn crop will be affected many million bushels by the date of killing frosts in the corn belt states. Just a few days' delay in fall frosts can add millions of bushels to the total production. The July crop estimate indicated a production of 75.2 million tons of corn, about average for 1938-42, but 15 million tons less than produced in 1944. Acreage is only 5 percent below last year, so the final result will depend upon the yields secured. At present corn is

H. G. CLAYTON

Florida Administrative Officer, Agricultural Adjustment Agency

very difficult to obtain as corn belt farmers have been busy with the crop and they also want to see this further along before they market too much old crop corn.

There is considerable interest in how Florida is coming along with production goals. Based upon information available on August 1, here is a brief summary for our principal crops and livestock:

Corn, 683,000 planted acres, 93 percent of goal.

U. S. has also planted 95 percent of goal.

Oats, 120,000 planted acres, 120 percent of the goal.

U. S. has Planted 104 percent of the goal.

Peanuts for all purposes, 243,000 acres, 97 percent of the goal.

U. S. has planted 99 percent of

the goal.

Hay, harvested 127,000 acres, 85 percent of the goal.

U. S. is estimated at 85 percent of the goal.

Estimated total harvested acres of all vegetables was 263,900 acres which is about 2,500 acres less than the record acreage of 1944 and will meet the total 1945 Florida goal.

There were less snap beans and tomatoes but more of other crops planted such as cabbage, celery, eggplant, escarole, and watermelons.

Irish potatoes planted 35,000 acres, 106 percent of goal.

U. S. acreage is 95 percent of goal.

Of the above the Florida goal for commercial harvested potatoes was 32,500 acres, while 31,400 acres were actually harvested.

Sweet potatoes planted 18,000 acres, 100 percent of goal.

U. S. acreage is 90 percent of goal.

Tobacco all types, planted acres

Good FFFertilizer and Good Service . . .

are essentials that every grower-customer of ours has long been accustomed to.

FLORIDA FAVORITE FERTILIZERS

Are known throughout the Florida citrus belt for the splendid job they do in building production, while our truck delivery service puts the FFFertilizer on the job when it is most needed.

Florida  **Favorite**
FERTILIZER COMPANY

Old Tampa Road

Lakeland, Florida

22,500, 100 percent of goal.

U. S. acreage is 101 percent of goal.

Cotton, 25,000 acres, 83 percent of goal.

U. S. 90 percent of goal.

Livestock

Sows to farrow spring 93,000, 80 percent—U. S. 86 percent.

Sows to farrow fall 65,000, 86 percent—U. S. 95 percent.

Milk cows, 118,000, 3,000 above goal.

Milk produced, 475 million pounds, 95 percent of goal. (But is about 55 million pounds above 1944).

Chickens raised excluding broilers, 4 million, slightly above the goal.

Broilers, 4.5 million, slightly above the goal.

Eggs produced, 16 million dozen, 1.8 million dozen below the goal.

Turkeys raised, 120,000, 4,000 below the goal.

Beef cattle, number on hand exceeds goal by 19,000 head.

These figures bring out several points. Enough additional peanuts can be harvested to meet the goal and this will also swell the amount of hay produced as the peanut vines go into hay.

Milk production was cut this spring due to drought injury to pastures and so there is still time to obtain production above that indicated up through June.

The number of sows to farrow this fall can still be increased.

When every factor is taken into account Florida farmers apparently will come through in good shape with their goals; a little over on some, and a little under on others. Corn yields are off due to drought and this can be offset by planting more oats this fall.

We believe all possible food and feed will be needed and that some additional feed is in prospect from increased processings of citrus pulp that has been wasted in the past and from by-products of the new sweet potato starch plant that will soon be in operation.

FLORIDA STATE HORTICULTURAL SOCIETY TO MEET IN ORLANDO OCT. 2, 3, 4

(Continued from page 5)

Address—"Citrus in South America". Dr. A. F. Camp, Lake Alfred.

Address—"Tung Oil Production in Florida". G. H. Blackmon, Gainesville.

Address—"The Research Program

of the Florida Citrus Commission".

Dr. L. G. McDowell, Lakeland.

Address—"Some Additional Information on Citrus Psorosis". H. E. Stevens, Orlando.

Thursday, October 4, 2:00 P. M.

Address—"Effect of DDT on the Little Fire Ant". Max Osborne, Ft. Pierce.

Address—"Oil Deposits from Commercial Oil Emulsions". J. C. Redd, Lake Alfred.

Address—"The Relation of Solids and Ratios to Timing of oil Sprays on Citrus". W. L. Thompson, Lake

Alfred.

Address—"The Set of Sweet Orange Fruit in Relation to Time of Bloom". Phillip C. Reese, Orlando.

Address—"The Present Status of DDT as an Insecticide". Dr. John T. Greighton, Gainesville.

Adjournment.

**Buy more War Bonds now
for Future security, too!**

PUMPS

PIPE

**IRRIGATION SUPPLIES
MACHINERY, MILL AND INDUSTRIAL SUPPLIES
CITRUS AND VEGETABLE CANNING AND PACKING
SUPPLIES**

AMES - QCL: Quick-Coupling Lock Portable Pipe

FLEX-O-SEAL: Pressure Tight Portable Pipe

TURBINE PUMPS: Deepwell "PEERLESS"

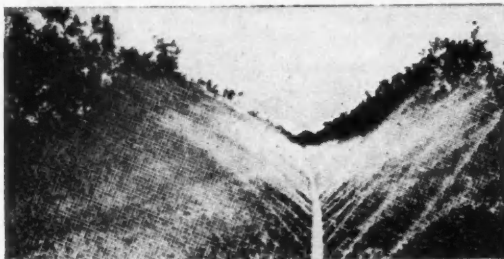
CENTRIFUGAL PUMPS: "GOULDS"



This field has 4 shallow wells. Pump and pipe are moved about freely.

Write for
folder and
layout chart

Attention:
Engineering
Department



Perf-O-Rain is so flexible it can serve every grove condition to advantage.

**FREE ENGINEERED LAYOUTS. No obligation
PLAN NOW for a drought-free future. Use**



THE CAMERON & BARKLEY CO.

P. O. Box 990, Tampa 1, Florida

or

Jacksonville

Orlando

Miami

Cover Crops For Soil Enrichment

A cover crop is one that is grown to cover and shade the soil to more or less control soil temperature, to prevent erosion, to prevent excessive leaching and finally to turn back to the soil as a green manure crop for soil enrichment.

In addition to preventing erosion and leaching the cover crop when returned to the soil adds organic matter together with minerals taken from the soil and nitrogen from the air if the cover crop happens to be a leguminous one.

Since soils are made up of weathered or disintegrated rock, animal and vegetable matter, the addition of the extra vegetable matter from the cover crop is quite important in keeping the soil well filled with abundant fresh and decaying vegetable matter.

Long before the day of commercial fertilizers farmers knew of the benefits to be derived from green manure crops and particularly those crops such as the legumes, which through bacteria in the nodules on the roots have the power of taking the nitrogen from the air in the soil and storing it in the nodules as well as the roots, stems and leaves of the plant.

It is my purpose now to call to your attention the cover crops which can be planted this fall if you are interested in controlling erosion, checking leaching losses and adding organic matter to your soil for enrichment purposes.

At the outset let me state that winter cover crops are not commonly grown in citrus groves and winter cover crops are not practical on lands to be used for fall and winter vegetable growing, so you citrus and winter vegetable growers will have to come in later with summer cover crops.

Winter cover crops are best suited for use in the general farming area of north and west Florida where the lands are not generally in row or cash crops during the winter.

The most satisfactory winter cover crops for soil enrichment are Blue Lupine, Austrian Pea and Hairy Vetch, with some preference being given the Blue Lupine because of its good seeding habits.

The time for planting these crops is October and November, September and December plantings are a little early and a little late respect-

W. E. STOKES

Agronomist, Florida Experiment Station

ively although sometimes success is had from such plantings.

For best results some phosphate and potash is needed and we suggest 300 to 400 pounds per acre of 0-14-10 applied before planting. Or if you want to mix your own superphosphate and potash use 200 to 300 pounds of superphosphate and 50 to 60 pounds of muriate of potash per acre respectively.

The rate and method of seeding these winter legume cover crops is:

Blue Lupine—50 to 100 pounds of seed per acre.

Austrian Peas—30 to 40 pounds of seed per acre.

Hairy Vetch—20 to 30 pounds of seed per acre.

Plant on well prepared and fertilized land and use a grain drill if available. If not, the seed can be

broadcast and disced in or turned under very shallow 2 to 3 inches deep.

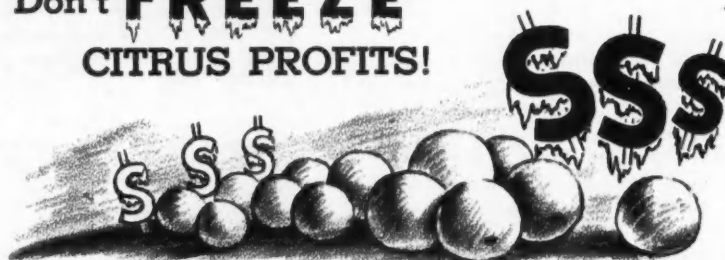
If you have not grown these crops before it is absolutely necessary to inoculate the seed before planting. This is done by securing the proper inoculating material from your seedman or elsewhere and using the inoculating material according to directions.

Where the winter cover crops are to be followed by corn or cotton the cover crop should be turned under a month ahead of planting cotton or corn. This gives the green manure crop a chance to decay, lessens the chance of insect damage to the corn or cotton, and increases chances of getting good stands of corn or cotton.

Usually corn and cotton yields are quite profitably increased by the winter cover and green manure crop.

Sugarcane yields in the general farm area could be greatly helped by planting winter cover crops in

Don't **FREEZE**
CITRUS PROFITS!



...apply d/p **DOLOMITE**
for top flight production!



- Keep your grove in top production with an annual application of d/p DOLOMITE, to maintain vital acid-alkali balance, and supply calcium and magnesium essential for healthy tree growth.

By neutralizing soil acids, d/p DOLOMITE not only makes your fertilizer effective, but releases natural "acid-locked" plant foods already in the soil. Apply this time-tested soil conditioner once each year — and watch top production produce peak profits!



DOLOMITE

Products, Inc. OCALA, FLORIDA

Buy War Bonds

the cane middles in the fall and turning under the cover crop at the first making of the cane in the spring, in which case the phosphate and potash to the cover crop would be all the fertilizer ever needed.

For a winter cover crop to precede cowpeas or late planted peanuts or other late planted crops, oats or rye are very satisfactory. These crops would not add nitrogen to the soil but they would prevent erosion, lessen leaching losses, add organic matter and minerals taken from the soil and, too, they would afford some grazing if needed.

The planting date for oats or rye is October and November. The rate of seeding is 2 bushels of oats or 1 bushel of rye per acre. The fertilizer for cover and grazing purpose oats or rye is 200 to 300 pounds per acre of 3-8-5 or 2-10-4 at planting and 100 to 150 pounds per acre of nitrate of soda top dressing in late January or early February.

To those of you then who are interested in soil enrichment through the use of cover crops may we suggest that you plan now to make use of one or more of the winter growing crops like Blue Lupine, Austrian Peas, Hairy Vetch, Oats or Rye — remembering also that in addition to soil enrichment value all of these crops except the Blue Lupine can, if necessary, be used for winter grazing crops.

HIGHLAND CRATE MILL PROPERTY SOLD

The Highlands Crate Cooperative

has closed its mill in Avon Park, and C. H. Walker, president of the concern, has purchased all of its property. The sale includes the mill at Avon Park and one at Fort Green, the crate mill and all equipment and houses.

Decision to close the Avon Park mill was brought about because all available timber had been cut and it was necessary for economy and efficiency to set up another mill nearer the source of timber.

The cooperative has recently purchased a veneer mill and tract of timber at Woodbine, Ga., about 30 miles from Jacksonville, where the new crate mill is located. There is fifty million feet of lumber in the tract, enough for a ten-year opera-

tion.

Walker, it is stated, bought the property in order to maintain it for future use. The main buildings and equipment, water supply, steam supply and other equipment will be kept intact for a period of time with the expectation that the mill may again be put in operation.

Buy War Bonds
TODAY
For Future Needs.

NOW : . . .

Johnson's New Citrus and Vegetable Wax

(Can be used with DICHLOROCIDE to prevent
BLUE MOLD and STEM END ROT)

Atlantic Citrus Cleaner
(for dip tanks)

Oleic Acid Soap Flakes

Chlorine and Chlorinated Products

Specialized chemicals, cleaners and supplies for
packing houses and canneries

ATLANTIC CHEMICALS
Orlando Jacksonville

'IF IT'S CAST METAL — WE CAN MAKE IT'

LET'S MAKE AND MAINTAIN A STEADY RATE OF PROGRESS!

Agriculture and industry will be called upon more in the postwar period than ever before — to serve each other in new ways, toward the future economic growth of our state.

Industry is now ready to accept the challenge of new assignments directed to Florida's greatest era of progress.

The C. I. Capps Co., Inc., is ready to aid the citrus industry with complete design and execution of labor-saving machines and special job-rated equipment.



The C. I. CAPPS CO., INC.
JACKSONVILLE, FLORIDA

Designers, Founders and Manufacturers of Special Equipment for Industry Since 1916

Heavy Movement Of Canned Citrus Noted . . .

Indications that the removal of point rationing from canned citrus juices would help to clean up the 1944-45 Florida pack and clear the way for canners to start rebuilding stocks as soon as the fruit is mature enough for processing, should be good news for orange and grapefruit growers.

With wholesale stocks cleaned out and inventories in the hands of retailers moving out at a fast clip, canners will be encouraged to start the season as soon as maturity tests give them a clearance—and this condition will have a direct bearing on the price which growers can hope to receive for their fruit, it is pointed out.

Typical of the reports received in the last few days is that of John Reilly, district manager at Chicago, who had just completed a swing through Illinois, Iowa and Wisconsin. O'Reilly said, in part:

"Much optimism is being shown by handlers as regards canned citrus since grapefruit and blended have been removed from the point list. Dealers report remarkable increases in movement, and apparently the movement of orange juice (which has been ration free for many weeks) has not suffered to the extent that it is causing any concern.

Some dealers believe orange juice has finally come into its own, that it will retain much of the popularity it has gained this season.

"Wholesalers who, a week or two ago, were anxious to resell some of their grapefruit stocks, are now reluctant to sell, considering canned citrus good property at this time. A number of houses are running short of orange juice and have orders in for California products, while a few have sold out their blended juice and cannot replenish stock. It is considered likely that Texas will increase its blend pack next season. A great deal of Texas grapefruit juice is to be found in this territory."

Ed Lane, Boston district manager, covering points in Massachusetts, Rhode Island, Connecticut, Maine and New Hampshire, said, in part:

"This has been a period handlers of canned citrus products are not likely to forget. First came news of the 50 percent reduction in point values on grapefruit and on blended juice. Then a few days

later, the removal of all points — and this was considered important by the leading handlers of Florida juices. Within a few days, many newspaper and store features appeared to tell the consumer the good news, and both window and store floor displays were increased vastly.

"The quick termination of point rationing on grapefruit and blended juice gives a brighter outlook to the hope for an early clean-up of inventories and dealers' shelf stocks."

James McCurdy, covering the Carolinas and Georgia, made this report, in part: "Point free was main topic of this week. Large spaces were used in weekend grocery advertisements featuring several different brands of grapefruit and blended juices. Large chain units and independent merchants who have a large supply of juices on hand were much pleased to hear that points had been removed. From all accounts contacted this week, everyone is most certain that the entire supply will be moved before the new pack is ready.

"Orange juice was still moving at a rapid rate. Little change was noted when the points were reduced, but when they were removed altogether, you could see where large displays were sold down to half or out, ready to be rebuilt.

"In stores visited I found quite a few vacant shelves due to the shortage of canned fruit. A suggestion has been offered, not only

to store managers, but to the heads of chain units as well, that they would take one large section of shelves or a prominent position in their stores and make a mass display of nothing but citrus juices with posters and advertising material featuring point free."

RESTRICTIONS ON FRUIT USE FOR ALCOHOLIC PRODUCTS TERMINATED

The U. S. Department of Agriculture has terminated War Food Order 69, as amended, effective August 25, which restricted the use of 19 kinds of fruits and berries in the manufacture of alcoholic products.

The order was issued in July 1943 to assist in meeting military and civilian requirements for fresh, dried, and processed fruit and berries. Under the terms of the order, quantities of fruits and berries could not be used for conversion into alcoholic products except under certain conditions and under special authorization.

MAINTAINING OUR SERVICE

at pre-war level and giving 100 per cent cooperation to our government — is our war-time aim — We appreciate the loyalty and cooperation of our subscribers in 27 Florida communities.

Florida Telephone Corporation
General Offices - Leesburg, Fla.

ORDER HEATERS NOW



9-gal. Round Heater
with 230-A stack

To protect your fruit or vegetables from frost and freeze next winter . . . order HY-LO Heaters now!

Complete Line of HY-LO Heaters

Round and Square in Limited Quantities

We can combine your orders with others to make up carload shipments. Such orders, if placed now, will benefit by direct car shipments from Toledo, Ohio, factory, thus eliminating local freight and crating charges.

For complete information, wire or write

SCHEU Products Company, Ltd.

UPLAND, CALIFORNIA

Florida Representatives

The GULF FERTILIZER COMPANY Tampa, Florida

Inspection Bureau Ready To Start

Florida's citrus inspection bureau, charged with the control of shipments from the state, checking every box of fruit packed for sale, as well as cannery offerings, will be ready to start the new season on Monday, Sept. 17.

George E. Copeland, the supervising inspector, said that while he was not trying to predict the actual start of the season or the first shipments, his district supervisors, numbering 17, would be on duty starting Sept. 17, ready to give inspection to any packer requesting the service and that inspectors would be added to the staff as fast as the demand warranted.

The district supervisors will be called to the Winter Haven headquarters on Sept. 15 for a discussion of the new season and a review of the laws under which the bureau operates.

Copeland said that early reports indicated the first fruit of the season, early maturing grapefruit, would probably come from the Lee county area, in and around Fort Myers, followed closely by shipments
(Continued on page 18)

BACTERIA (Continued from page 7)

the discussion of the cycle of nitrogen, one may take the complete protein. Many microorganisms may attack this, and eventually the nitrogen appears as ammonia. Various bacteria in the soil are capable of changing this to nitrites and nitrates. The nitrates are assimilated by the green plant and gradually built up into complex proteins again. Under certain conditions bacteria may attack the nitrates and change them to nitrites, or to free nitrogen. Certain microorganisms are likewise capable of taking up atmospheric nitrogen and converting it to their own use, or in some cases turning it over to higher plants. This process, called nitrogen fixation, is very important in the nitrogen economy of the soil, because nitrogen occurs to a limited extent in most soils, it is required in relatively large quantities, and it is the most expensive nutrient element supplied in commercial fertilizers.

There is another phase of bacteriology which has not been men-

tioned but any discussion of the subject, however short, would be incomplete without reference to biological interactions. That is, the influence of bacteria on one another. One dramatic example of this is seen in penicillin. Everyone knows that penicillin, a product of a common soil fungus, is used successfully to prevent infection. There are, no doubt, many close parallels in the growth of higher and lower plants. We know that azaleas do well in acid soils. It is

claimed that the acid is not what they require, but it is the presence of certain microorganisms which flourish under acid soil conditions. The implication is made that, provided the proper organisms are present, the plants will do well regardless of the acidity of the soil.

Space will not permit further examples, but we have endeavored to show how the destiny of man is governed by the tiny microbes. The importance of the bacteria cannot be over-estimated.

"FOR EVERYTHING THAT GROWS ON EARTH"

HIGH GRADE TEXAS CALCINED MAGNESITE

Manufactured By J. J. CATES, Llano, Texas
Home Office, Cates Building, Sanford, Fla.

A fertilizer material rich in Magnesium for grove, nursery, and farm requirements. Contains an average of 80% Magnesium as Magnesium Oxide — IMMEDIATELY active and available for improving soil pH Value, correcting Magnesium Deficiency, and building up a Magnesium reserve in the soil.

Your Fertilizer Manufacturer Will Supply

TEXAS CALCINED MAGNESITE

in your favorite fertilizer brands at from 2 to 4 units for maintenance depending upon conditions, or will recommend DIRECT APPLICATION for correction of severe Magnesium Deficiency at a rate per acre to suit your particular condition.

"BRONZING" — (Magnesium Deficiency)

of CITRUS TREES and the various symptoms of Magnesium Deficiency in VEGETABLES indicate serious losses in production which you cannot afford to take. The use of TEXAS CALCINED MAGNESITE will pay big dividends in healthy trees and plant condition, increased volume of production, and improved quality of fruits and vegetables.

TEXAS CALCINED MAGNESITE

... Sold By ...

Lyons Fertilizer Company, Tampa, Florida
Florida Favorite Fertilizer Company, Lakeland, Florida
Haines City Fertilizer Company, Haines City, Florida
Polk County Fertilizer Company, Haines City, Florida
Maxcy Fertilizers, Inc., Frostproof, Florida
Wheeler Fertilizer Company, Oviedo, Florida
Chase & Company, Sanford, Florida
Citrus Culture Corporation, Mount Dora, Florida
Plymouth Fertilizer Works, Plymouth, Florida
Parrish Fertilizer & Manufacturing Co., Deland, Fla.
Alvin H. Hinson, Plant City, Fla.

The LYONIZER

Department

COMPILED BY THE LYONS FERTILIZER CO.

Reports Of Our Field Men . . .

NORTH CENTRAL FLORIDA V. E. (Val) Bourland

It has been a continuous fight all summer with mites and scale insects. With weather conditions as they have been it has been difficult to operate the spray machine on a full time schedule and as a result we have some fruit that has been marked by rust mites and we also have some groves where scale insects did damage not only to fruit, but caused some wood damage. With the extremely dry weather that we had during the spring and early summer it was doubtful as to how much cover crop we would get, but when the rains started the cover crops started too, and I am glad to report that we have some very fine growth that in many cases is now being cut to allow for the second growth. We have some pepper set in the Winter Garden area and growers are making plans to go forward with a normal acreage of vegetable crops this fall.

HILLSBOROUGH & PINELLAS COUNTIES

C. S. (Charlie) Little

As far as growers in this territory are concerned at the present time the rains can call a recess for a few days. Our lakes are overflowing and many groves are really getting wet. With the extremely heavy rains of the past few months we are planning to go forward with an early fall application of fertilizer to replenish the supply of soluble nitrogen that has unquestionably been either taken up by the trees or cover crops or leached from the soil. Last month when we made our report to the LYONIZER we thought that we were getting a heavy set of our late June and July bloom, but since that time conditions have changed and we are now wondering just how much fruit will actually stay on the trees. During the past weeks we have noticed that the droppage has been extremely heavy. We have had heavy infestations of rust mite for the past two months and in many

cases it has been necessary to spray with lime sulfur to control mites and many growers are delaying their oil application until early fall.

WEST CENTRAL FLORIDA

E. A. (Mac) McCartney

I am at heart really an optimist, and as far as predicting the Florida fruit crop I think this trait serves me well because year after year in the final analysis, we pick out as much fruit as we think we have and in many instances it has exceeded even this optimistic estimate. This year though, I am not so jubilant about the crop as I have seen many groves that are not carrying their normal crop—however these are groves that we do not fertilize—or it would be better if I would say that most of them are groves that we do not fertilize. Recently, with the sales manager of our Company we made a trip through the northern end of my territory, a section that I have to some extent neglected, but am now assuring the readers of the Lyonizer that they can expect to see me more often. They have some very fine properties and a very good crop of fruit. We have been having some trouble with rust mite throughout this territory. Frankly we have some rusty fruit. We have lots of fruit with melanose and we have lots of late bloom which all means trouble for the packing house men, but taking everything into consideration we have a fair crop of fruit that we expect to sell at good prices.

POLK COUNTY

J. M. (Jim) Sample

The question that every one is asking throughout this section is: "What about the late bloom? How will it affect the total crop in Polk county?" Well, there is no question but that it will greatly increase our total tonnage of fruit for the season. However, at the present time it appears that a large percentage of the July (early July) bloom will drop from the

trees while groves that were in good condition will hold most of May and June bloom. It is our opinion that the May and early June bloom will make good quality fruit. This is especially true in the case of late varieties. Just what will happen in the case of extremely late bloom on early and mid-season varieties is a question that is hard to answer at this time—in fact it is a guess. Rust mite? We have had them galore and it is been necessary in many cases to by-pass the oil spray in favor of sulphur to keep these pests under control where early varieties of fruit are being grown that it is now necessary to use an oil spray even in spite of the fact that we know it will delay the maturity of the fruit on the trees.

SOUTHWEST FLORIDA AND HIGHLANDS COUNTY

Evans Allison

Well Folks, I am a newcomer to the LYONIZER but I can assure you right here in the beginning that it is not new to me. I have been reading it for many years. I hope that I will be able to keep readers all over the state posted on the section that I cover as well as has been done in the past. Now to get down to business, I want to tell you that the folks around Ruskin are planning on a big crop for this fall. They are getting ready to keep the winter vegetable basket full. This is also true around the Bradenton and Sarasota sections. In fact at Sarasota the boys are now just about ready to start the celery crop. As far as fruit is concerned, if we take all the bloom into consideration from January to July we have a good crop. Some sections have quite a bit of early bloom, but taking the whole territory into consideration we have to consider all bloom before we can say that we have a good crop. Then too, there is the matter of droppage that we have noted during the past few weeks, so look for our report next month before you put too much confidence in what we have said above. We are having a great deal of trouble with scale and rust mites.



Sometimes it's hard to get everybody to agree on the same thing but I'll bet my very best white shirt that everyone who reads these lines agrees with the Lyons Fertilizer Company that they are plumb glad the war has been won. When we think what our boys have gone through fightin' these devils in Europe and Asia and about the many of them who won't never come back it jest makes us sick. We can only hope now that it is over and with the terrible weapons of war which have just been perfected that no one nor no nations will ever again be able to start another war.

Course its natural and proper that all of us figure what the end of the war is goin' to mean to us, and us growers has got some real hard figgerin' to do. We've had some mighty profitable seasons the last few years and this comin' season and maybe the next one ought to net us good prices right on 'cause we've got to furnish fruit enuf to feed durn near the whole world, but when things git clear back to normal the story is goin' to be different.

This don't mean anybody need to git all upset about the situation fer while we won't be to put near as much in the bank from the sale of our fruit as we have these last few years, still even at much lower prices and with production climbin' every year the citrus raisin' business is goin' to be a good business.

Quality fruit has always paid big dividends and with these here secondary elements it's a heap easier to raise quality fruit than it was a few years ago. The fresh fruit buyer is goin' to demand and get high grade fruit. Then, too, fresh fruit must be fixed so it will carry longer and it's got to be good lookin', and it's got to stay on the tree longer so the marketin' time will last longer. Federal, state and commercial agencies has accomplished a lot in the last few years in the way of marketin' fresh fruit. canned fruits and concentrates and it won't be long before a mighty big hunk of our crop will be sold as frozen fruit.

The outlook for the future lacks a heap of bein' bad if we just keep up with the times. And fer my money the citrus grower is one of the smartest and luckiest guys they is.

Uncle Bill

Frozen Concentrates Offer Big Market

Florida's newest citrus product, frozen condensed orange juice, may become a big factor in broadening the base of distribution for Florida fruit and in making a full vitamin content juice available throughout the year at soda fountains, drug stores, restaurants, hotels, hospitals, on dining cars and airplanes, and in the home, according to Knight & Middleton, Inc., of Clearwater, who have contributed largely in its development.

The product has been subjected to a comprehensive merchandising test in a large Washington, D. C., chain during the past several months. Results of this test convince the manufacturers of its over-the-counter sales value.

Officials say that they have planned for a greatly increased production for the new season with estimates running from 1,500,000 to 2,000,000 gallons of the condensed juice—each gallon representing, roughly, one standard box or 90 pounds of fresh fruit.

Delivered to point-of-sale in gallon containers, with only dilution with three quarts of water needed, the new frozen condensed juice does away with objections of counter-men and soda dispensers to handling orange juice. It can be re-constituted hours before it is to be served—with proper refrigeration the only factor in retaining flavor and vitamins. This factor appeals to store managers and others in charge of food and beverage dispensing who are suffering from shortage of trained help. Sanitary conditions are improved, with no peel, segment or waste juice to contend with. The new product makes it possible to serve orange juice at all hours of the day, which should increase sales.

INSPECTION BUREAU READY TO START

(Continued from page 15)

from Lake and upper Orange counties.

The return of servicemen to their former posts on the inspection staff will give Copeland sufficient manpower for the season, he said, without hiring and training new men. He expects a peak staff of 230 to 235 men to cover from 285 to 300 houses in the 32-county citrus producing area. Schools for the inspectors will probably get underway sometime after Sept. 20.

Classified Advertisements

FOR SALE— ONE 20-H.P. Farquhar Locomotive Type Boiler in good condition. Garland C. Norris, P. O. Box 692, Lakeland, Florida.

FOR SALE — 35,000 ft. 8-5/8" OD 21.31 L. W. Line Pipe in 40-ft. Lengths P. E. Beveled, used but in excellent condition.

UTILITY & INDUSTRIAL SUPPLY COMPANY
921 East Michigan Ave. Jackson, Mich.

WILL BUD CITRUS on contract, sour or lemon stock. John Grieshop Nursery. San Antonio, Florida.

CITRUS TREES— Best quality usual varieties on sour orange or rough lemon stock. Robt. P. Thornton, c/o Clay Hill Nurseries Co., Box 2880, Tampa, Florida.

WAIT for the highly improved **SEEDLESS PARSON BROWN ORANGE**. Average seed content per fruit 1/4 half; most of the fruits entirely seedless. Extremely heavy bearing strain. Ripens as soon as Seedy Parsons. Place your order for trees NOW. No orders filled until 1947. Price \$2.00 per bud. No orders accepted less than 500 trees. \$10.00 per tree in lots of no less than ten trees for stock purposes for large growers wishing to bud their own trees.

ROYAL PURPLE CITRUS RESEARCH NURSERY
Orlando, Florida Phone 5467

COMPLETE Packing House equipment for sale. Two car load capacity. N. E. McConaghy, Satsuma, Alabama.

BETTER BE Safe Than Sorry — you can't be too careful in selecting for future Citrus plantings. Highly improved Seedless Grapefruit, Seedless "Round" Oranges and patented "Dream" Navels fill the need for the early market. **WE NEED BADLY, IMPROVED EARLY SEEDLESS CITRUS VARIETIES.** Now we've got 'em let's use 'em. We are headquarters for four New Money Oranges; Bombay, Florida Honey Orange, Golden Honey Orange and Caines Honey Orange. Also four high-grade **SUMMER Oranges**; Eola, Von Werder, Clermont and Summer Tangerine-Orange which seasons run from May into September. These are all valuable fruits certain to make you money.

ROYAL PURPLE CITRUS RESEARCH NURSERY
Orlando, Florida Phone 5467

THERE Is A Great Future for highly improved seedless Grapefruit of extremely early maturity. We have it. **WINSTON'S EARLY SEEDLESS GRAPEFRUIT —** a brand new fruit ripening late August or earliest September, heavy in juice, sweet and delicious at early maturity. Never been sold. Premium prices paid for high grade sweet seedless early grapefruit. Should be a real bonanza. Quit fumbling—get on the band wagon. No sales until 1947—just warning you to wait for **THE BEST**. Get in on the ground floor—order ahead.

ROYAL PURPLE CITRUS RESEARCH NURSERY
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WANTED TO BUY — REAL ESTATE — My wife and I desire ten (10) acres or more citrus grove plus additional acreage and home or homestead. Immediate possession not required. Furnish full particulars. Cash or mortgage as you desire. N. W. Oppenheim, 155 Humes Place, Memphis 11, Tenn.

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